REMARKS

Reconsideration is requested.

Claim 1 has been canceled, without prejudice, and the remaining claims made dependent from claim 16. Claim 16 has been revised, without prejudice, as the deleted phrase appears to be redundant in step (i). The applicants submit that one of ordinary skill will appreciate means to provide the required reduced, negatively charged nanotubes with positive counterions. No new matter has been added. The claim amendments do not raise new issues requiring further search and/or consideration. No new issues are raised by the claim amendments. Entry of the Amendment is requested.

Claims 2-12 and 16 will be pending upon entry of the present amendment.

Entry of the present Amendment will make moot the Rule 75 objection to claim 16. Entry of the Amendment is requested.

The Section 102 rejection of claims 1, 2, 5, 7 and 16 over Petit (JACS 2005, 127, 8-9 (web published December 10, 2004 on http://pubs.acs.org|doi:10.1.021/ja0443373) is obviated by the attached certified English translation of the applicants' priority application FR 03 15 582, which was filed December 30, 2003. Entry of the attached and withdrawal of the Section 102 rejection are requested.

The Section 102 rejection of claims 1, 2, 9, 11, 16 over Ikazaki (U.S. Patent No. 5,695,734). Reconsideration and withdrawal of th rejection are requested in view of the above and the following distinguishing comments.

Ikazaki teaches a process for isolating carbon nanotubes from a mixture containing carbon nanotubes and graphite. According to claim 1 of the cite patent , the Ikazaki process comprises the steps of:

(a) reacting said mixture with a metal compound to intercalate said metal compound into said graphite,

(b) reducing said reaction mixture obtained in step (a) to convert said intercalated metal compound to elemental metal;

(c) heating said reduction mixture obtained in step (b) at a temperature of 450°-600°C in an oxygen-containing atmosphere to selectively oxidize said graphite and said elemental metal; and

(d) contacting said heated mixture obtained in step (c) with a liquid to dissolve said oxidized metal in said liquid and to separate said carbon nanotubes as a solid phase from said oxidized metal.

The section of Ikazaki relied on by the Examiner refers to step (b) of the Ikazaki process, which aims at converting the metal compound intercalated between layers of the graphite resulting from step (a), into elemental metal. Ikazaki does not literally or inherently teach, or suggest, the reduction of carbon nanotubes resulting in the formation of negatively charged nanotubes with positive counterions.

In fact, Ikazaki teaches that the product resulting from the reduction treatment described at column 2, lines 44-48 of the cited document contains carbon nanotubes and the elemental metal-carrying graphite (see column 2, lines 51-52). The cited passage of Ikazaki does not teach or suggest negatively charged nanotubes with

positive counterions (i.e., reduced nanotubes). According to the teachings of Ikazaki, it is the intercalated metal compound (i.e., metal halide) that is reduced in step (b), not the nanotubes.

Even if column 2, lines 44-48 of Ikazaki, which is relied on for the stated novelty rejection, were interpreted as inherently teaching a reduction of carbon nanotubes into negatively charged nanotubes with positive counterions, which it would not be so interpreted by one of ordinary skill in the art, this faulty interpretation would only satisfy the requirements of step (i) of the claimed process. As evidenced by paragraphs [0030] through [0032] of the U.S. Patent Office published version of the present application, mixing reduced nanotubes with THF leads to a suspension of reduced nanotubes (which may be isolated by filtering), not a solution. Therefore, to the extent that column 2, lines 44-48 of Ikazaki teaches reduced carbon nanotubes in THF, the reduced nanotubes are insoluble.

Ikazaki does not literally or inherently teach that the nanotubes may be in a dissolved state. In other words, Ikazaki does not teach step (ii) of the presently claimed process. Specifically, Ikazaki does not disclose, teach or suggest "a dissolved phase of negatively charged nanotubes with positive counterions" in a polar solvent. In fact, the applicants believe that one of ordinary skill in the art will clearly understand that the Ikazaki process involves carbon nanotubes in the solid state, not in a dissolved state. This is apparent for example from step (d) of the Ikazaki process, which recites that the carbon nanotubes are separated as a solid phase. See also column 2, lines 65-67: "By a solid-liquid separation such as by filtration, the carbon nanotubes may be isolated".

Ikazaki fails to teach each and every aspect of the presently claimed invention. Withdrawal of the Section 102 rejection of claims 1, 2, 9, 11, 16 over Ikazaki is requested.

The Section 103 rejection of claims 1-5, 7, 11 and 16 over Jouguelet et al. (Chemical Physics Letters 318 (2000) 561-564 "Controlling the electronic properties of single-wall carbon nanotubes by chemical doping") in view of Petit; and the Section 103 rejection of claims 8 and 12 over Jouguelet, Petit and Ajayan (WO2004/046031) are obviated by the attached certified English translation of the applicants' priority document, the filing date of which antedates the cited Petit reference of each combination of art. Withdrawal of the Section 103 rejections are requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required in this regard.

Respectfully submitted,

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